



Abstract: Syndactyly: National Analysis of Trends in Epidemiology and Surgical Management from 1997–2012

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between the groups ($p=0.3332$); however, nerve repair was significantly more frequently employed in the schwannoma group ($p=0.0110$). Nerve tube repair was more commonly utilized in the schwannoma group ($p=0.0004$); epineural, fascicular, and nerve graft techniques were utilized equivalently.

There were no significant differences in post-operative motor weakness (6.9% vs. 15.0%; $p=0.1529$) or sensory changes (2.8% vs. 10.0%; $p=0.0510$) between the groups.

Ten patients in the neurofibroma group and seven in the schwannoma groups responded to a post-operative survey. There were no significant differences for any responses. Both groups reported improvement in post-operative quality of life ($p=0.7806$), no regret with surgery ($p=1.000$), and a positive proclivity towards proceeding with surgery for potential future peripheral nerve tumors ($p=0.8029$).

CONCLUSION: Peripheral neurofibromas and schwannomas are unique in terms of presentation, tumor characteristics, and operative outcomes; however, both may be safely managed surgically.

Syndactyly: National Analysis of Trends in Epidemiology and Surgical Management from 1997–2012

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INTRODUCTION: Syndactyly is a common congenital hand deformity with an estimated incidence of 1:2000 live births.¹ Previous studies have discussed disparities in the provision of hand and upper limb services in the United States.² Our study aims are to (1) analyze the epidemiology of syndactyly and trends in surgical management over time; (2) identify socioeconomic disparities affecting treatment.

METHODS: A retrospective analysis of the Healthcare Cost and Utilization Project Kids Inpatient Database was performed for all available years (1997, 2000, 2003, 2006, 2009, 2012). Children under the age of three with a diagnosis of syndactyly were retrieved using International Classification of Diseases, Ninth Revision diagnosis codes (ICD-9 755.11, 755.12, 755.55); procedural data for syndactyly correction were also retrieved. Trends over time were analyzed using the Cochran-Armitage test. Patient and hospital characteristics underwent multivariable logistic regression modeling to evaluate predictors of surgical treatment.

RESULTS: Overall, 6,401 cases of syndactyly were retrieved over the study period, with an incidence of 16.32/million in 2012. The majority were Caucasian (59.1%) and male (61.5%), admitted to Southern (35.6%), large bed size (59.2%), urban, teaching hospitals (63.3%), with either predominantly Private (49.6%) or Government-based insurance (44.0%).

Of these, 12.8% ($n=821$) underwent procedures for syndactyly correction. Over time there was a significant decrease in surgical correction of syndactyly (20.5% in 1997 to 6.0% in 2012, $p<0.001$). Of those having surgery, there has been a significant increase in flap-based reconstruction of the hand over time (12.2% in 1997 to 30.6% in 2012, $p<0.001$).

Predictors of not having surgical treatment for syndactyly were Medicaid coverage (OR 1.253, CI 1.066–1.471); lowest three incomes quartiles (OR 1.29, CI 1.051–1.584; OR 1.404, CI 1.152–1.712; OR 1.281, CI 1.062–1.545); admission to a medium (OR 1.248, CI 1.021–1.526), large (OR 1.597, CI 1.321–1.931), urban non-teaching (OR 1.899, CI 1.360–2.653), urban teaching (OR 1.152, CI 1.772–2.615) or Midwestern (OR 1.324, CI 1.054–1.663) hospital.

CONCLUSION: The surgical correction of syndactyly within the inpatient setting is decreasing over time. Socioeconomic disparities are evident: Medicaid insurance status and lower household income had significantly lower rates of surgical correction. Minimizing socioeconomic barriers to care may be important steps in enhancing the quality of care that is delivered to vulnerable pediatric populations.

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One Third of Plastic and Surgical Patients Have Limited Health Literacy: A Systematic Review and Meta-Analysis

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INTRODUCTION: Health literacy has been defined as the extent to which patients are able to understand and act upon health information.¹ Limited or inadequate health literacy has been shown to have a negative impact on patient satisfaction, clinical outcomes, and risk of hospitalization.^{2,3} This complex concept is of high importance for surgeons as their patients have to comprehend the nature, risks and benefits of surgical procedures, adhere to strict perioperative rules, and make complex care decisions about interventions or lack thereof.⁴ The aim of this review was to evaluate the prevalence of reported inadequate health literacy levels and the measurement tools used in the plastic and surgical patient populations.

METHODS: A systematic review and meta-analysis was conducted according to the Cochrane guidelines. Relevant studies reporting health literacy measurements in surgical patient populations were identified from MEDLINE and Embase published from inception until January 14th 2017. Two-stage screening and data extraction were performed by two independent reviewers. Data on study design, sample size, patient population, health literacy measurement tool, and prevalence of inadequate health literacy were extracted and analyzed.

RESULTS: A total of 934 abstracts were screened, 103 articles were reviewed and 57 met inclusion

criteria. Five randomized controlled trials, 8 prospective cohorts, 36 cross-sectional studies were included including only 11 (19.0%) studies published before 2010. 18,894 surgical patients were included in these studies and the prevalence of inadequate health literacy was 32.8% (range 2.8–80.7%, 95%CI: 25.9–40.1). Fifteen (26.3%) studies did not present health literacy measurement results. Numerous health literacy measurement tools were used (16 validated, 6 non-validated). Only five studies pertained to the hand surgery and one to the plastic surgery literature.

CONCLUSION: Our review demonstrates a high prevalence of limited health literacy within the plastic and overall surgical patient populations. While there is considerable variation in measurement tools currently being used, our review suggests a great need for patient-education and decision-aid tools for surgical patients with limited health literacy.

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The Utility of Vascularized Bone Grafting in Spinal Reconstruction Secondary to Tumor Resection

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